

## BEST AVAILABLE COPY

Amendment Under 37 C.F.R. § 1.111  
U.S. Appln No. 10/804,142

Atty Dkt No. Q80622

### REMARKS

Claims 1, 7-64 are all the claims pending in the application.

This Amendment reflects the amendments made in the Supplemental Preliminary Amendment filed on June 1, 2004, which was nearly one month prior to the June 28, 2004 mail date of the Office Action. Thus, claims 2-6 have been canceled and claims 9-64 have been added. A PTO date-stamped copy of the Supplemental Preliminary Amendment accompanies this Amendment for the Examiner's convenience.

Applicants believe that this Amendment should be considered a *bona fide* attempt to respond to the Office Action because the Examiner should have considered the Supplemental Preliminary Amendment and/or issued a supplemental Office Action, which would have reset the date for responding to the Office Action.

Even if the Examiner had started to prepare the first Office Action before he received the Supplemental Preliminary Amendment, the preliminary amendment should have been entered and considered because it was filed less than three months after the filing of this application under 37 C.F.R. § 1.53(b). *See* 37 C.F.R. § 1.115(b)(2)(i) and MPEP § 714.03(a)(I).

Applicants also note that even if the action and amendment "crossed" in the mail, it is usually necessary for the Examiner to promptly prepare a supplemental action and reset the reply period to run from the mail date of the supplemental action. *See* MPEP § 714.05.

Next, Applicants note that they have attempted to resolve this matter by filing a Request for Consideration of Supplemental Preliminary Amendment on August 3, 2004. A PTO date-stamped copy of the Request accompanies this Amendment for the Examiner's convenience.

Finally, regarding the 35 U.S.C. § 112, second paragraph rejections of claims 7 and 8 for allegedly providing no antecedent basis for "the polyolefin," the Examiner is referred to line 3 of the claims which provide the proper antecedent basis for this term.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

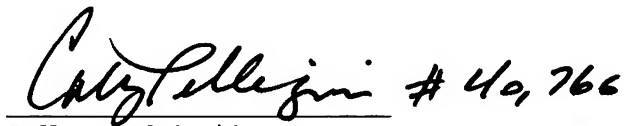
Respectfully submitted,

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
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WASHINGTON OFFICE

**23373**

CUSTOMER NUMBER

*for*  # 40,766  
Jeffrey A. Schmidt  
Registration No. 41.574

Date: December 28, 2004



3

**FILING RECEIPT**  
**PLEASE DATE STAMP AND RETURN TO US - BOX 235X**

In re application of  
Toshikazu YABE, et al.  
Appln. No.: 10/804,142  
Confirmation No.: 6378  
Filed: March 19, 2004



Group Art Unit: 3682  
Examiner: Peter MULCAHY

For: RUBBER MATERIAL COMPOSITION AND LINEAR MOTION APPARATUS  
PAPER(S) FILED ENTITLED:

1. Request for Consideration of Supplemental Preliminary Amendment

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

DOCKET NO.: Q80622  
ATTORNEY/SEC: JAS/rhs  
Date Filed: August 3, 2004

WASHINGTON OFFICE

**23373**

CUSTOMER NUMBER



**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of  
Toshikazu YABE, et al.

Docket No: Q80622

Appln. No.: 10/804,142

Group Art Unit: 3682

Confirmation No.: 6378

Examiner: Peter MULCAHY

Filed: March 19, 2004

For: RUBBER MATERIAL COMPOSITION AND LINEAR MOTION APPARATUS

**Request for Consideration of Supplemental Preliminary Amendment**

**MAIL STOP AMENDMENT**

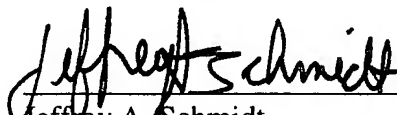
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**FILED**  
AUG - 3 2004

Sir:

Applicants have received an Office Action mailed on June 28, 2004. However, the June 28 Office Action does not take into account new claims 9-64 as added by the Supplemental Preliminary Amendment filed on June 1, 2004. Accordingly, it appears that the June 1 Supplemental Preliminary Amendment and the June 28 Office Action "crossed in the mail". Accordingly, Applicants hereby request a new Office Action that addresses the June 1 Supplemental Preliminary Amendment, including new claims 9-64.

Respectfully submitted,

  
Jeffrey A. Schmidt  
Registration No. 41,574

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WASHINGTON OFFICE

**23373**

CUSTOMER NUMBER

Date: August 3, 2004



10

**FILING RECEIPT**  
**PLEASE DATE STAMP AND RETURN TO US - BOX 235X**

In re application of

Toshikazu YABE, et al.

Appln. No.: 10/804,142

Confirmation No.: Unknown

Filed: March 19, 2004



Group Art Unit: Unknown

Examiner: Unknown

For: RUBBER MATERIAL COMPOSITION AND LINEAR MOTION APPARATUS

PAPER(S) FILED ENTITLED:

1. Supplemental Preliminary Amendment
2. Excess Claim Fee Payment Letter (in duplicate with Check No. 248191 in the amount of \$702.00).

SUGHRUE MION, PLLC

Telephone: (202) 293-7060

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DOCKET NO.: Q80622


ATTORNEY/SEC: JAS/rhs

Date Filed: June 1, 2004

WASHINGTON OFFICE

**23373**

CUSTOMER NUMBER

INVOICE DATE	INVOICE NO.			NET INVOICE
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248191	06/01/04 10456			702.00



**Sughrue**

SUGHRUE AION, PLLC

2100 PENNSYLVANIA AVENUE, N.W.  
WASHINGTON, D.C. 20037-3213

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248191

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AND TRADEMARKS

Q80622

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AMOUNT
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NON NEGOTIABLE  
*Cynthia C. Walker*

⑈ 248191⑈ ⑆055002707⑆ 206548885⑈



PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of  
Toshikazu YABE, et al.

Docket No: Q80622

Appln. No.: 10/804,142

Group Art Unit: Unknown

Confirmation No.: Unknown

Examiner: Unknown

Filed: March 19, 2004

For: RUBBER MATERIAL COMPOSITION AND LINEAR MOTION APPARATUS

EXCESS CLAIM FEE PAYMENT LETTER

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**FILED**  
JUN - 1 2004

Sir:

A Supplemental Preliminary Amendment is attached hereto for the above-identified application.  
The resulting excess claim fee has been calculated as shown below:

	After Amendment		Highest No. Previously Paid For					
All Claims	59	-	20	=	39	X	\$18.00	= \$702.00
Independent	3	-	3	=		X	\$86.00	= \$0.00
TOTAL								= \$702.00

A check for the statutory fee of \$702.00 is attached. The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this letter is enclosed.

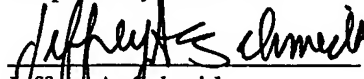
SUGHRUE MION, PLLC  
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WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Respectfully submitted,

  
Jeffrey A. Schmidt  
Registration No. 41,574

Date: June 1, 2004



**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Docket No: Q80622

Toshikazu YABE, et al.

Appln. No.: 10/804,142

Group Art Unit: Unknown

Confirmation No.: Unknown

Examiner: Unknown

Filed: March 19, 2004

For: RUBBER MATERIAL COMPOSITION AND LINEAR MOTION APPARATUS

**SUPPLEMENTAL PRELIMINARY AMENDMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**FILED**  
JUN - 1 2004

Sir:

Prior to examination, and in addition to the Preliminary Amendment as filed March 19, 2004, please amend the above-identified application as follows on the accompanying pages.



**AMENDMENTS TO THE SPECIFICATION:**

**On page 15, please amend the 2<sup>nd</sup> full paragraph as follows:**

In case the ordinary acrylonitrile-butadiene rubber is used as the raw rubber, when the tensile rupture elongation is around 200%, the tensile strength is around 15 to 20 MPa. In ~~contrast~~ contrast, in case the carboxylated acrylonitrile-butadiene rubber is used as the raw rubber, when the tensile rupture elongation is around 200%, the tensile strength is around 25 MPa or more.

**On page 16, please amend the 2<sup>nd</sup> full paragraph as follows:**

If the rubber material composition is used to the sealing member ~~[[as]]~~ for the hub unit seal, the vulcanization based additive and the age-resister are added as necessary components, and as cases may be, several kinds of additives may be added as the reinforcing filler, the abrasion improving agent, the lubricant, the lubrication oil, and the processing material.

**On page 30, please amend the 1<sup>st</sup> full paragraph as follows:**

The rubber material composition ~~is ordinarily added with~~ may have waxes added thereto as an age resister and, particularly, a sun-crack preventing agent to resist cracks by the sunlight or ozone. Waxes added as an age resister have a of the melting point being of 55 to 70°C, and are added in an amount of 0.5 to 2 wt parts for 100 wt parts of the raw rubber as the age resister, practically the sun-crack preventing agent restraining formation of cracks by the sunlight or the ozone.

**AMENDMENTS TO THE CLAIMS:**

1. (currently amended) A rubber material composition comprising:  
carboxylated acrylonitrile-butadiene rubber;  
20 to 90 wt parts of carbon black for 100 wt parts of said carboxylated acrylonitrile-  
butadiene rubber; and  
10 to 60 wt parts of polyolefin resin for 100 wt parts of said carboxylated acrylonitrile-  
butadiene rubber.

**2-6. (canceled)**

7. (previously presented) A rubber material composition consisting essentially of:  
carboxylated acrylonitrile-butadiene rubber; and  
10 to 60 wt parts of polyolefin resin for 100 wt parts of said carboxylated acrylonitrile-  
butadiene rubber,  
wherein the polyolefin resin is selected from the group consisting of carboxylic modified  
polyethylene and carboxylic modified polypropylene.

8. (previously presented) A rubber material composition comprising:  
carboxylated acrylonitrile-butadiene rubber; and  
10 to 60 wt parts of polyolefin based resin for 100 wt parts of said carboxylated  
acrylonitrile-butadiene rubber,  
wherein the polyolefin based resin is selected from the group consisting of carboxylic  
modified polyethylene and carboxylic modified polypropylene.

9. (new): The rubber material composition of claim 7, wherein the carboxylated  
acrylonitrile-butadiene rubber comprises a carboxyl group in an amount of  $1 \times 10^{-4}$  ephr or  
more, in terms of acid-equivalent weight.

10. (new): The rubber material composition of claim 9, wherein the carboxylated acrylonitrile-butadiene rubber comprises a carboxyl group in an amount of  $2 \times 10^{-3}$  to  $5 \times 10^{-2}$  ephr, in terms of acid equivalent weight.

11. (new): The rubber material composition of claim 10, wherein the carboxylated acrylonitrile-butadiene rubber comprises a carboxyl group in an amount of  $2 \times 10^{-3}$  ephr, in terms of acid equivalent weight.

12. (new): The rubber material composition of claim 7, further comprising a vulcanization agent and an age register agent.

13. (new): The rubber material composition of claim 12, further comprising a reinforcing agent selected from the group consisting of hydrated silica, clay, talc, calcium carbonate, diatomaceous earth and wollastonite.

14. (new): The rubber material composition of claim 13, wherein the reinforcing agent is an amount of 20 to 150 wt parts per 100 parts of the carboxylated acrylonitrile-butadiene rubber.

15. (new): The rubber material composition of claim 12, further comprising a reinforcing agent that comprises a mixture of carbon black and a white filler selected from the group consisting of hydrated silica, clay, talc, calcium carbonate, diatomaceous earth and wollastonite.

16. (new): The rubber material composition of claim 15, wherein the mixture is 20 to 200 wt parts per 100 wt parts of the carboxylated acrylonitrile-butadiene rubber.

17. (new): The rubber material composition of claim 16, wherein the mixture comprises 10 to 90 wt parts of carbon black and 10 to 110 wt parts of the white filler.

18. (new): The rubber material composition of claim 7, further comprising a lubricant wax or oil.

19. (new): The rubber material composition of claim 18, wherein the lubricant is a wax having a melting point of 40 to 140°C.

20. (new) The rubber material composition of claim 19, wherein the wax is selected from the group consisting of paraffin wax, micro-crystal wax, polyethylene wax, montan wax, carnauba wax, an ester based wax, stearamide, oxystero amide erucylamide, laurylamide, palmitylamide, behenamide, methylolamide, ethylenebisoleylamide and stearylolyleylamide.

21. (new): The rubber material composition of claim 20, wherein the wax is polyethylene wax.

22. (new): The rubber material composition of claim 19, wherein the wax is added in an amount of 3 to 30 wt parts per 100 wt parts per the carboxylated acrylonitrile-butadiene rubber.

23. (new): The rubber material composition of claim 18, wherein the lubricant is an oil selected from the group consisting of a mineral oil, an ether oil, a silicone oil, a poly  $\alpha$  olefin oil, a fluorine oil and a fluorine base surfactant.

24. (new): The rubber material composition of claim 23, wherein the lubricant is a silicone oil comprising polydimethyl siloxane as a main component.

25. (new): The rubber material composition of claim 24, wherein a part of the methyl group of the polydimethyl siloxane is a modified type replaced with an amino group, alkyl group, polyether group or higher fatty acid ester.

26. (new): The rubber material composition of claim 23, wherein the oil is added in an amount of 1 to 30 wt parts per 100 wt parts of the carboxylated acrylonitrile-butadiene rubber.

27. (new): The rubber material composition of claim 19, wherein the wax has a melting point of 55 to 70°C and is added in an amount of 0.5 to 2 wt parts per 100 wt parts of the carboxylated acrylonitrile-butadiene rubber.

28. (new): The rubber material composition of claim 19, wherein the wax has a melting point of 75 to 130°C and is added in an amount of 5 to 20 wt parts per 100 wt parts of the carboxylated acrylonitrile-butadiene rubber.

29. (new): The rubber material composition of claim 7, having a hardness of 60 to 90 according to spring hardness A scale in JIS K6301.

30. (new): The rubber material composition of claim 29, having a hardness of 70 to 80 according to spring hardness A scale in JIS K6301.

31. (new): The rubber material composition of claim 7, having a hardness of 60 to 90 measured by a durometer A scale.

32. (new): The rubber material composition of claim 31, having a hardness of 70 to 80 measured by a durometer A scale.

33. (new): The rubber material composition of claim 29, having tensile rupture elongation of 200% or higher.

34. (new): The rubber material composition of claim 33, having tensile rupture elongation of 300% or higher.

35. (new): The rubber material composition of claim 34 having tension rupture strength of 20 MPa or more.

36. (new): The rubber material composition of claim 35 having tension rupture strength of 25 MPa or more.

37. (new): The rubber material composition of claim 8, wherein the carboxylated acrylonitrile-butadiene rubber comprises a carboxyl group in an amount of  $1 \times 10^{-4}$  ephr or more, in terms of acid-equivalent weight.

38. (new): The rubber material composition of claim 37, wherein the carboxylated acrylonitrile-butadiene rubber comprises a carboxyl group in an amount of  $2 \times 10^{-3}$  to  $5 \times 10^{-2}$  ephr, in terms of acid equivalent weight.

39. (new): The rubber material composition of claim 38, wherein the carboxylated acrylonitrile-butadiene rubber comprises a carboxyl group in an amount of  $2 \times 10^{-3}$  ephr, in terms of acid equivalent weight.

40. (new): The rubber material composition of claim 8, further comprising a vulcanization agent and an age register agent.

41. (new): The rubber material composition of claim 40, further comprising a reinforcing agent selected from the group consisting of hydrated silica, clay, talc, calcium carbonate, diatomaceous earth and wollastonite.

42. (new): The rubber material composition of claim 41, wherein the reinforcing agent is an amount of 20 to 150 wt parts per 100 parts of the carboxylated acrylonitrile-butadiene rubber.

43. (new): The rubber material composition of claim 40, further comprising a reinforcing agent that comprises a mixture of carbon black and a white filler selected from the group consisting of hydrated silica, clay, talc, calcium carbonate, diatomaceous earth and wollastonite.

44. (new): The rubber material composition of claim 53, wherein the mixture is 20 to 200 wt parts per 100 wt parts of the carboxylated acrylonitrile-butadiene rubber.

45. (new): The rubber material composition of claim 44, wherein the mixture comprises 10 to 90 wt parts of carbon black and 10 to 110 wt parts of the white filler.

46. (new): The rubber material composition of claim 8, further comprising a lubricant wax or oil.

47. (new): The rubber material composition of claim 46, wherein the lubricant is a wax having a melting point of 40 to 140°C.

48. (new) The rubber material composition of claim 47, wherein the wax is selected from the group consisting of paraffin wax, micro-crystal wax, polyethylene wax, montan wax, carnauba wax, an ester based wax, stearamide, oxystero amide erucylamide, laurylamide, palmitylamide, behenamide, methylolamide, ethylenebisoleylamide and stearylolyleylamide.

49. (new): The rubber material composition of claim 48, wherein the wax is polyethylene wax.

50. (new): The rubber material composition of claim 47, wherein the wax is added in an amount of 3 to 30 wt parts per 100 wt parts per the carboxylated acrylonitrile-butadiene rubber.

51. (new): The rubber material composition of claim 46, wherein the lubricant is an oil selected from the group consisting of a mineral oil, an ether oil, a silicone oil, a poly  $\alpha$  olefin oil, a fluorine oil and a fluorine base surfactant.

52. (new): The rubber material composition of claim 51, wherein the lubricant is a silicone oil comprising polydimethyl siloxane as a main component.

53. (new): The rubber material composition of claim 52, wherein a part of the methyl group of the polydimethyl siloxane is a modified type replaced with an amino group, alkyl group, polyether group or higher fatty acid ester.

54. (new): The rubber material composition of claim 51, wherein the oil is added in an amount of 1 to 30 wt parts per 100 wt parts of the carboxylated acrylonitrile-butadiene rubber.

55. (new): The rubber material composition of claim 47, wherein the wax has a melting point of 55 to 70°C and is added in an amount of 0.5 to 2 wt parts per 100 wt parts of the carboxylated acrylonitrile-butadiene rubber.

56. (new): The rubber material composition of claim 47, wherein the wax has a melting point of 75 to 130°C and is added in an amount of 5 to 20 wt parts per 100 wt parts of the carboxylated acrylonitrile-butadiene rubber.

57. (new): The rubber material composition of claim 8, having a hardness of 60 to 90 according to spring hardness A scale in JIS K6301.

58. (new): The rubber material composition of claim 57, having a hardness of 70 to 80 according to spring hardness A scale in JIS K6301.



59. (new): The rubber material composition of claim 8, having a hardness of 60 to 90 measured by a durometer A scale.

60. (new): The rubber material composition of claim 59, having a hardness of 70 to 80 measured by a durometer A scale.

61. (new): The rubber material composition of claim 57, having tensile rupture elongation of 200% or higher.

62. (new): The rubber material composition of claim 61, having tensile rupture elongation of 300% or higher.

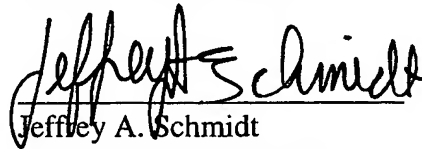
63. (new): The rubber material composition of claim 62, having tension rupture strength of 20 MPa or more.

64. (new): The rubber material composition of claim 63, having tension rupture strength of 25 MPa or more.

**REMARKS**

Claims 1 and 7-64 are all the claims pending in this application. Claims 2-6 have been canceled without prejudice or disclaimer. New claims 9-64 have been added to further define the invention. The Specification has been amended to correct minor typographical errors. No new matter has been added. Entry and consideration of this Amendment are respectfully requested.

Respectfully submitted,



Jeffrey A. Schmidt  
Registration No. 41,574

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WASHINGTON OFFICE

**23373**

CUSTOMER NUMBER

Date: June 1, 2004

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